

CENTRAL INTELLIGENCE AGENCY  
WASHINGTON, D.C. 20505

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[redacted] 8693-69  
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NRO REVIEW COMPLETED

MEMORANDUM FOR: Director, National Reconnaissance Office

SUBJECT: Methane Fuel Tests

REFERENCES: A. [redacted] Memorandum for Director,  
National Reconnaissance Office from  
Director, CIA Reconnaissance Programs

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B. [redacted] Memorandum for Director,  
CIA Reconnaissance Programs from Director  
National Reconnaissance Office dated  
23 April 1968, Subject: General R&D  
(Aircraft) Activities for FY 68

C. Meetings of [redacted]  
(R&D/OSA) with Mr. Jones (Deputy Assistant  
Secretary of the Air Force for R&D) of  
13 September 1968; and [redacted] with  
Mr. Jones of 29 January 1969

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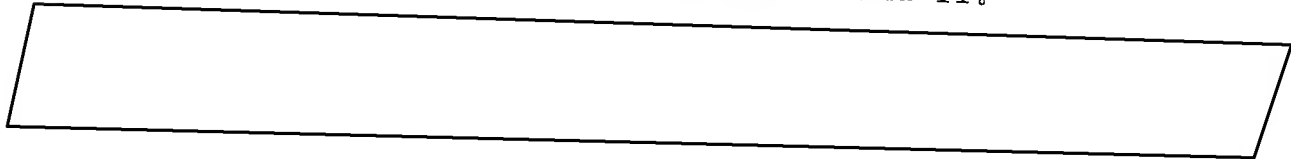
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2. As suggested in paragraph 4, reference B, this subject has been reviewed with Mr. Joe Jones (Deputy Assistant Secretary of the Air Force, R&D). Mr. Jones indicated that this approach was in line with the National effort on the subject, and should be pursued.

3. A description of this proposed Phase III effort and its interface with the development and test of a complete methane fuel system is included in Attachments I and II.

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CARL E. DUCKETT  
Director, CIA Reconnaissance Programs

Attachments:

2 - As stated above

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SIGNATURE RECOMMENDED:

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Director of Special Activities

12 Feb 69  
Date

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BFD/COMPT/OSA  (11 Feb 69)

Distribution:

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1&2 - D/NRO

3 - D/CIA/RP Chrono

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5 - Compt/DD/S&T

6 - DDS&T Registry

7 - DDS&T Registry

8 - D/SA

9 - Compt/OSA

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10 - BFD/OSA

11 - R&D/OSA

12 - D/M/OSA

13 - OPS/OSA

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COORDINATION:

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Comptroller, OSA

Deputy Director, OSA

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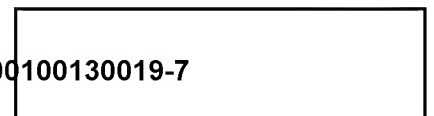
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Deputy for Research & Development

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Attachment I to  
[ ] 8693-69NRO  
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GROUND TEST OPERATION OF A SMALL JET ENGINE  
ON LIQUIFIED METHANE FUEL

The methane fuel engine demonstration program was previously proposed in FY 68 with initial effort to commence in that year. At the time the FY 68 program was proposed, a complete engine demonstration program was also formulated. This total effort was divided into a four phase program as follows.

<u>PHASE</u>	<u>PROPOSED EFFORT</u>	<u>COST</u>
I	Component Design & Analysis	[ ]
II	Basic Component Integration & Demonstration	
III	JT12 (J60) Engine Demonstration with Breadboard Fuel Vaporizer	
IV	JT12 Engine Demonstration with Integral Engine Vaporizer	

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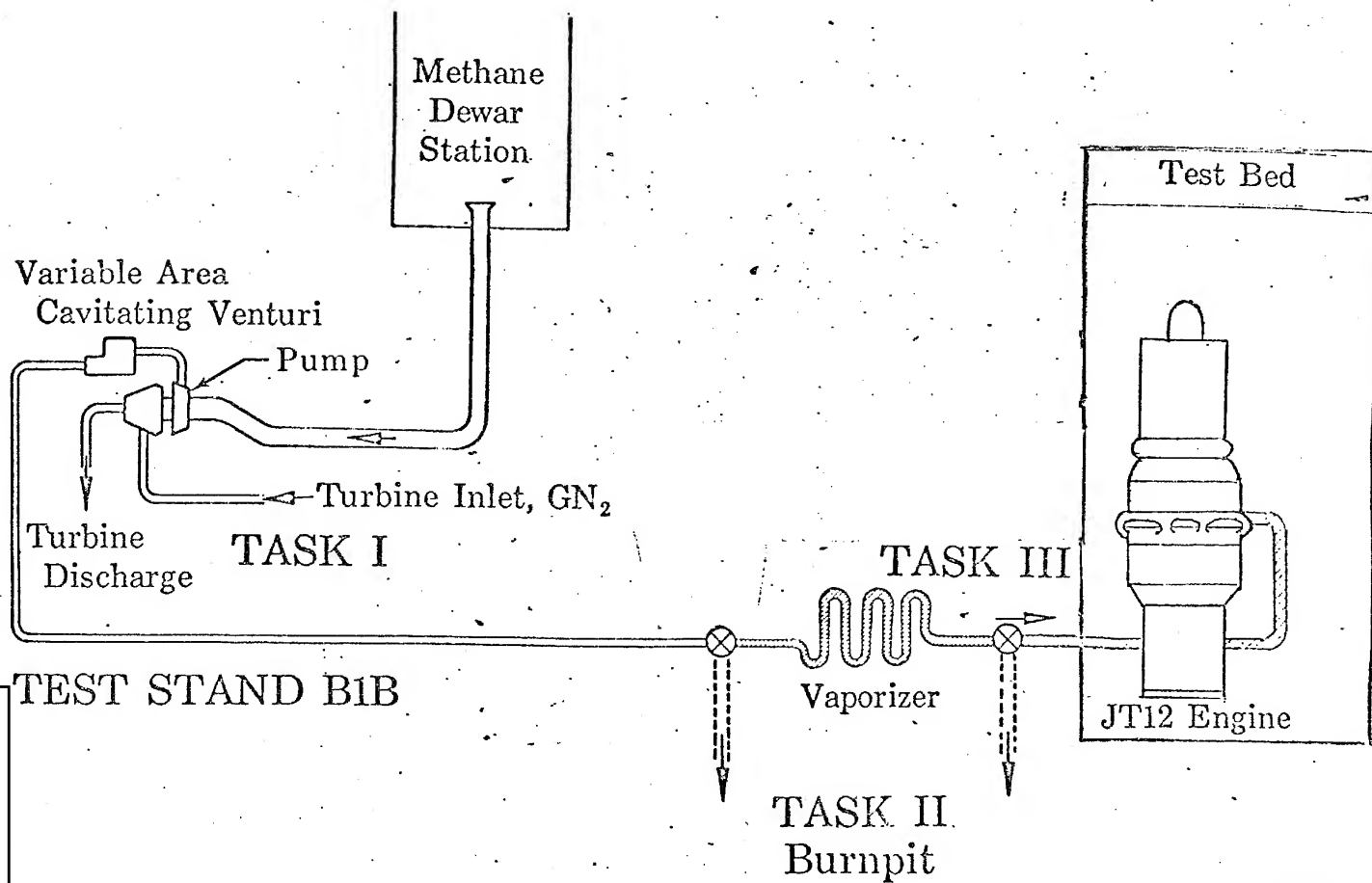
A brief demonstration effort covering Tasks I and II has already been completed by Pratt & Whitney (FRDC) under their approved FY 68 independent Research and Development Program. No plans or funding now exist for conducting the Phase III effort. The only related area in the approved FY 69 IR&D Program at Pratt & Whitney involves efforts to "push" JP type fuels to higher speed applications, i.e., beyond Mach number 3.5.

The Phase III effort for [ ] will involve the operation of a JT12 engine with an open loop fuel system using components similar to those designed and tested under Phases I and II. These components consist of a fuel pump, variable area cavitating venturi, and a breadboard fuel vaporizer. A schematic of this engine demonstration system is shown in the attached diagram. This program should require approximately one year to complete.

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METHANE FUEL SYSTEM TEST SETUP  
Approved For Release 2002/06/25 : CIA-RDP68B00724R000100130019-7  
ENGINE DEMONSTRATION PROGRAM



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Attachment 2 to 669-69

### ROUTING AND RECORD SHEET

SUBJECT: (Optional)

Methane Fuel Tests

FROM:

BFD/COMPT/OSA

EXTENSION

NO.

8693-69 ✓

DATE

11 FEB 69

TO: (Officer designation, room number, and building)

DATE

RECEIVED

FORWARDED

OFFICER'S INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

1. BFD/OSA

(Release)

2. COMPT/OSA

(Coordination)

3. R&D/OSA

(Coordination)

4. DD/OSA

(Coordination)

5.

EO/SA

6. D/SA

(Signature Recommd)

7.

8. Compt/OSA

(Zerex)

9.

10. RB/OSA

(Carry to DDS&T)

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